Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

The first volume of the new edition covers the first 120 pages of the old edition; there is thus an increase in the number of pages of more than 45 per cent. The expansions are mainly in connection with footnotes, more than doubled in number, and with the sections on "Numbers in general" and "Integers." The treatment of perfect numbers in this latter-named section would have been vastly improved if due account had been taken of the comprehensive survey in Dickson's *History of the Theory of Numbers*, volume 1, 1919, (see *1921*, 140–141). Tropfke gives no reference to results obtained regarding odd perfect numbers, and the twelve known perfect numbers are, therefore, without indicated warrant called the *first* twelve numbers of this type.

It is incorrectly stated, on page 26, that the first printed work to have its pages numbered with Arabic numerals was a certain work of Petrarch published in 1471. In the Annmary Brown Memorial of Providence, R. I., is a copy of a work by Werner Rolewinck published in 1470, and with pages so numbered (see *1921*, 423).

As a whole, this first volume of the new edition offers, at present, the most satisfactory treatment of its kind in the field discussed, and is a great improvement on the corresponding part of the first edition. There is no change in the general plan of the work. That the author has had the benefit of coöperative assistance on the part of G. Eneström and H. Wieleitner tends to fortify the feeling of the reader that down to the smallest detail great care has been exercised to make exact statements.

The Vereinigung wissenschaftlicher Verleger has, for some time, pursued a campaign of extortion so far as America is concerned, by charging for their books more than five times the published prices. For a bound copy of the book under review \$2.30 are demanded. It is to be hoped that such action will be suitably resented.

August, 1921.

R. C. ARCHIBALD.

Technical and Scientific Serials in the Libraries of Providence, 1920. Compiled by the various libraries and edited by F. K. W. DRURY. Providence, R. I., 1921. Royal 8vo. 9 + 63 pp. Price 60 cents.

This publication lists about 2500 titles of serials (as defined by the American Library Association) in mathematics, chemistry, physics, biology, botany, and geology, as well as in the mechanic and useful arts, engineering, trades, medicine and the fine arts. "The list looks forward not simply to a complete list of *all* serials in the libraries of Providence or of the State, but to a complete sectional union list for New England and the East. Such a list is under way in the North Central states; this list is a contribution toward one on the Atlantic seaboard. With this in mind the national abbreviations for the libraries have been used rather than symbols purely local."

The publication is not above criticism in connection with the mathematical titles. A few selected indications of this must suffice. The two entries for this

MONTHLY on page 4 indicate confusion in the mind of the compiler and "Funkel" is given for "Finkel." On page 13, for "Fērpussac" read "Ferussac." The entry "Notes in mathematics, 1905, 06, 12" under Johns Hopkins University is very misleading since these are only three of many such numbers in the *Johns Hopkins University Circulars* of which Brown University has practically a complete set. On page 19 it is stated that the first volume of the *Proceedings of the Edinburgh Mathematical Society* was published in 1883, when the correct date is 1894; volume two was published in 1884. *Revista Matematica hispano-americana* was not "continuing *Revista de matemáticas,* in Buenos Aires" (pages 49, 53).

In spite of its imperfections, however, the bibliographer and research student will be grateful for this valuable new aid in the promotion of their inquiries.

R. C. ARCHIBALD.

Mathematics of Finance. By H. L. RIETZ, A. R. CRATHORNE, and J. C. RIETZ. New York, Henry Holt and Company, 1921. 12mo. 13 + 280 pp. Price $3.00.

Preface: "It is the main purpose of this book to present a teachable elementary course in the application of mathematics to a broad class of financial problems.

"The material for the book has been obtained from many sources and tested in the teaching of such courses at three large universities. Experience has shown that the material is especially adapted to the needs of the students in schools and colleges of commerce and business administration, although general liberal arts and engineering students also find the course of much value.

"The man with a liberal business education should surely be thoroughly and accurately trained in the operation of interest in relation to finance. This course is designed to supply such training. In particular, this book treats of the relation of interest to the amortization of debts, to the creation of sinking funds, to the treatment of depreciation, to the valuation of bonds, to the accumulation of funds in building and loan associations, and to the elements of life insurance.

"Three chapters are devoted to an introduction to the elements of the mathematics of insurance. This is not a technical actuarial treatment of insurance, but simply a sufficient introduction to insurance so that the general business man who studies the book may obtain proper quantitive knowledge about the first principles of life insurance; and, as a student, may come to appreciate the beautiful system of long time finance involved in legal reserve life insurance.

"For the study of the book, no mathematical preparation, except that usually included in the high school course, is absolutely necessary, but courses in freshman and even in sophomore college mathematics will be found very useful, especially if only a short time is devoted to the work on this book.

"The plan of the book is such as to afford much elasticity in the time required to cover the work with a class. This is accomplished in part by the inclusion of many applied problems that should be solved by students when this work is given as a full course of, say three hours per week for a year. When the work is given as a briefer course, many problems may be omitted. Indeed, the entire work beginning with the chapter on probability, or with the previous chapter on building and loan associations may be omitted, without destroying the continuity of the course. These omissions would make possible a very brief course. Answers are given to some of the problems to meet the needs of those teachers who find them useful.

"The necessary subjects in pure mathematics beyond the elements of algebra are given in the body of the text, in foot-notes or in special chapters at the end of the text. These final chapters are on logarithms and progressions. Students who have not studied these subjects will do well to take portions of these chapters first.

"Some rather complicated formulas are developed in the book. It is important to guard the student against the tendency to substitute half blindly in the formulas. In fact, it is one of the features of our treatment to stress the formulas which the student should think out from first principles rather than the formulas most convenient for substitution without thinking.